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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,323	11/19/2003	Darren Neuman	15183US01	8262
23446	7590	06/01/2006	EXAMINER	
MCANDREWS HELD & MALLOY, LTD				CRIBBS, MALCOLM D
500 WEST MADISON STREET				
SUITE 3400				
CHICAGO, IL 60661				ART UNIT PAPER NUMBER
				2115

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/717,323	NEUMAN, DARREN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Malcolm D. Cribbs	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11/19/2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-42 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,14,19-21,23,24 and 42 is/are rejected.
- 7) Claim(s) 5-13,15-18,22 and 25-41 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. **Claims 1-42 are presented for examination.**

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 19, 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As per claim 1, line 4, "the frequency" lacks antecedent basis.

5. As per claim 1, line 9, "the midpoint" lacks antecedent basis.

6. As per claim 19, line 6, "the midpoint" lacks antecedent basis.

7. As per claim 42, line 6, "the midpoint" lacks antecedent basis.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 14, 19-21, 23-24, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee [Publication No. US 2004/0239388] in view of Oppedahl [US Patent No. 5,500,861].

10. As per claims 1, 19, and 42, Lee et al teach the invention comprising:  
receiving the clock signal by a first delay line [Fig. 5; 20];  
receiving the clock signal by a second delay line [Fig. 5; 21];  
generating a first delayed clock signal from the first delay line using a first control signal [Fig. 5; 28; Control signal going into 28]; and  
generating a second delayed clock signal from the second delay line using a second control signal [Fig. 5; 29; Control signal going into 29].  
clocking the data using a first pair of logic devices to generate a first data sequence [Fig. 5 DG groups 22; Page 3 [0033] [0037] and Fig. 6] wherein logic gating devices make up the delay groups [DG]];  
clocking the data using a second pair of logic devices to generate a second data sequence [Fig. 5 DG 23; Page 3 [0033] [0037] and Fig. 6].

11. Lee does not teach a method of generating an output based on the first and second data sequences. Specifically, Lee teaches a method of generating an output based on only one data sequence and the first clock. However, Lee fails to detail clocking while incorporating both of the data sequences. A routinee in the art would have been motivated to look for a teaching for the possible method of clocking using both data sequences along with the first clock.

12. Oppedahl teaches another method of clocking data to first clock [system clock]. Oppedahl teaches a method of generating an output [Fig. 3; 311] based on the first and second data [Fig. 3; 307, 308]; thereafter the output is clocked with the first clock [system clock], [Fig 3; 312;]. In summary, Oppedahl teaches a method of clocking based on both data and a first clock instead of one data sequence suggested by Lee.

13. It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Oppedahl, which are analogous art, because they both teach a method of clocking using a first clock based on data. Oppedahl covers the deficiency of Lee by teaching the detail of clocking, based on both data sequences, by the first clock in order to improve upon the accuracy of using only one data sequence.

14. As per claims 2-4, Oppedahl teaches the invention comprising flip-flops and registers [Fig. 3; 307, 308].

15. As per claim 14, Lee teaches a method relating to a digital delay locked loop in a double data rate synchronous DRAM. It would be obvious to one skilled in the ordinary art that a software program stored in a memory and executed by a processor is included within a double data rate system.

16. As per claims 19-21, and 23-24, it is directed to a system to implement the method of steps as set forth in claims 1-4, and 14. Therefore, it is rejected for the same basis as set forth hereinabove.

17. As per claim 42, it is directed to a system to implement the method of steps as set forth in claims 1-4, 14. Therefore, it is rejected for the same basis as set forth hereinabove.

18. Claims 5-13, 15-18, 22, and 25-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Malcolm D Cribbs  
Examiner  
Art Unit 2115

May 17, 2006.



THOMAS LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100